

REMARKS

At the time of the Office Action dated April 19, 2007, claims 1-27 were pending in this application. Of those claims, claims 25-27 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. §1.142(b).

In this amendment, claims 2 and 12 have been amended, and claim 1 canceled. Care has been exercised to avoid the introduction of new matter. Support for the amendment can be found in, for example, Figs. 6 and 12, and relevant description of the specification.

Claims 2-24 are now active in this application, of which claim 2 is independent.

Specification

The Examiner requested correction of errors in the specification, if any. Applicants have made cursory review of the specification, but did not find typos or grammar errors in the specification.

Claim 12 has been rejected under 35 U.S.C. §112, second paragraph.

The Examiner asserted that it is unclear as to what the metes and bounds of the limitation “the infrared rays traveling through the solid portion forming the wall of the pipe,” recited in claim 12. This rejection is respectfully traversed as legally erroneous.

Indefiniteness under the second paragraph of 35 U.S.C. § 112 is a question of law. *Zoltek Corp. v. United States*, 57 USPQ2d 1257 (Fed. Cir. 2000); *Personalized Media Communications LLC v. U.S. International Trade Commission*, 161 F.3d 696, 48 USPQ2d 1880 (Fed. Cir. 1998); *Tillotson Ltd. v. Walbro Corp.*, 831 F.2d 1033, 4 USPQ2d 1450 (Fed. Cir. 1987); *Orthokinetics Inc. v. Safety Travel Chairs Inc.*, 806 F.2d 1565, 1 USPQ2d 1081 (Fed. Cir. 1986). Accordingly,

in rejecting a claim under the second paragraph of 35 U.S.C. § 112, the Examiner must provide a basis and fact and/or cogent technical reasoning to support the ultimate legal conclusion that one having ordinary skill in the art, with the supporting specification in hand, would not be able to reasonably ascertain the scope or protection defined by a claim. *In re Okuzawa*, 537 F.2d 545, 190 USPQ 464 (CCPA 1976). Significantly, consistent judicial precedent holds that reasonable precision in light of the particular subject matter involved is all that is required by the second paragraph of 35 U.S.C. § 112. *Zoltek Corp. v. United States*, *supra*; *Miles Laboratories, Inc. v. Shandon, Inc.*, 997 F.2d 870, 27 USPQ2d 1123 (Fed. Cir. 1993); *North American Vaccine, Inc., v. American Cyanamid Co.*, 7 F.3d 1571, 28 USPQ2d 1333 (Fed. Cir. 1993); *U.S. v. Teletronics Inc.*, *supra*; *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ (Fed. Cir. 1986). Applicants stress that claims must be interpreted as one having ordinary skill in the art would have interpreted the claims in light of and consistent with the supporting specification. *Zoltek Corp. v. United States*, *supra*; *Miles Laboratories, Inc. v. Shandon, Inc.*, *supra*.

In applying the above legal tenets to this case, Applicants submit that the Examiner did not discharge the initial burden of providing a basis in fact and/or cogent technical reasoning to support the ultimate legal conclusion that one having ordinary skill in the art would not be able to ascertain the scope of protection defined by the claims, when reasonably interpreted in light of and consistent with the supporting specification. This is so because the Examiner simply stated, “It is unclear what the metes and bounds of the limitation ‘the infrared rays traveling through the solid portion forming the wall of the pipe’ are” (paragraph 3 of the Office Action), without any specific reason why the claimed limitation is unclear. It is apparent that the Examiner did not discharge the initial burden.

Applicants submit that one having ordinary skill in the art would have no difficulty understanding the scope of the claimed invention (see, e.g., Fig. 12 and relevant description of the specification). Infrared rays can travel through a solid object, such as the wall of pipe 16 shown in Fig. 12. When the right end of holding pipe 16 is heated to have a high-temperature, infrared rays radiated from the heated right end travel through the wall of pipe 16 (see an optical fiber in which light is confined in a core having a greater reflective index and is guided along its length). At the temperature claimed, infrared rays propagation is nearly equal to heat propagation. If holding portion 16 has a bent portion such as radiating portion 15, infrared rays are radiated from radiating portion 15, reducing the amount of the infrared rays reaching the left end of holding portion 16. On the other hand, if holding pipe 16 does not have radiating portion 15, almost all infrared rays is propagated from the right end to the left end of holding pipe 16.

Applicants would stress that the disclosure is directed to one having ordinary skill in the art. *In re Howarth*, 654 F.2d 103, 210 USPQ 689 (CCPA 1981). Applicants would further submit that one having ordinary skill in the art would have fully understood the scope of the claimed invention, particularly when reasonably interpreted in light of and consistent with the specification. Moreover, Applicants would stress that the disclosure must be presumed enabling, and the Examiner has raised no issue with respect thereto. *In re Brana*, 51 F.3d 1560, 34 USPQ2d 1436 (Fed. Cir. 1995); *In re Marzocchi*, 439 F.2d 220, 169 USPQ 367 (CCPA 1971).

Based upon the foregoing, Applicants submit that the imposed rejection of claim 12 under the second paragraph of 35 U.S.C. §112 is not legally viable and, hence, solicit withdrawal thereof.

The Examiner further stated that there is an insufficient antecedent-basis issue for the limitation “the infrared rays traveling through the solid portion forming the wall of the pipe,”

recited in claim 12. In response, claim 12 has been amended. Withdrawal of the rejection of the claim is, therefore, respectfully solicited.

Claim 1 has been rejected under 35 U.S.C. §102(b) as being anticipated by Yokota et al. and Barns et al. (paragraphs 6 and 7 of the Office Action).

Applicants submit that these rejections have been rendered moot by the cancellation of claim 1. Withdrawal of the rejections of the claim is, therefore, respectfully solicited.

Claims 2-4, 6, 13, 15, and 24 have been rejected under 35 U.S.C. §102(b) as being anticipated by Kamiya et al. (paragraphs 8-13 of the Office Action).

In the statement of the rejection, the Examiner asserted that Kamiya et al. discloses a process for fabricating an optical fiber identically corresponding to what is claimed.

Applicants submit that Kamiya et al. does not identically disclose a method of producing an optical fiber including all the limitations recited in independent claim 2. Specifically, the reference does not disclose, at a minimum, “the drying step, the sealing step, and the collapsing step are performed in that order,” as recited in claim 2.

The Examiner, referring to column 3, lines 11-26 of Kamiya et al., asserted that the reference teaches the claimed drying step and sealing step. The Examiner’s cited portion of Kamiya et al. describes that “one end of the quartz tube 31 is sealed to form a sealing end 42” (sealing step), and then “the quartz tube 31 is evacuated by a suction pump 35 while heating by a heating furnace 31” (drying step). Kamiya et al. describes that the seating step is performed first and the drying step is performed next. Accordingly, because one end of quartz tube 31 is sealed

first, it is impossible for a dried gas to go through quartz tube 31 from one end to the other (see **Figure A**, attached).

In contrast, claim 2 recites that the drying step is followed by the sealing step, and the sealing step is followed by the collapsing step. Accordingly, as shown in **Figure B** (attached), one end of the glass pipe is not sealed at the time of the drying step, a dried gas can go through the glass pipe from one end to the other, and can reduce the amount of the re-adsorption of the desorbed hydrogen atom-containing substances to the surface of the glass pipe.

Based on the foregoing, Kamiya et al. does not identically disclose a method of producing an optical fiber preform including all the limitations recited in independent claim 2. Dependent claims 3, 4, 6, 13, 15, and 24 are also patentably distinguishable over Kamiya et al. at least because these claims include all the limitations recited in independent claim 2. Applicants, therefore, respectively solicit withdrawal of the rejection of claims under 35 U.S.C. §102(b) and favorable consideration thereof.

Claims 5, 7-12, 14, and 16-23 have been rejected under 35 U.S.C. §103(a) (paragraphs 16-23).

Claims 5, 21, and 22 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of DiGiovanni et al.; claims 7 and 8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Barns et al.; claims 7 and 8 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Onishi et al.; claims 10 and 23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Kunio et al.; claim 14 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Homa; claim 16 has been rejected under 35

U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Chang et al.; claims 17-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Kamiya et al. in view of Homa and Yokota et al.

It is noted that the Office Action does not address claims 9, 11, and 12, but Applicants will discuss these claims as if they were rejected only for the sake of this response.

Claims 5, 7-12, 14, and 16-23 depend from independent claim 2. Applicants incorporate herein the arguments previously advanced in responding to the rejection of independent claim 2 under 35 U.S.C. §102 for anticipation evidenced by Kamiya et al. The Examiner's additional comments and secondary reference to DiGiovanni et al., Barns et al., Onishi et al., Kunio et al., Homa, Chang et al., and Yokota et al. do not cure the previously argued deficiencies of Kamiya et al.

Therefore, Applicants respectfully solicit withdrawal of the rejection of the claims and favorable consideration thereof.

Conclusion

It should, therefore, be apparent that the imposed rejections have been overcome and that all pending claims are in condition for immediate allowance. Favorable consideration is, therefore, respectfully solicited.

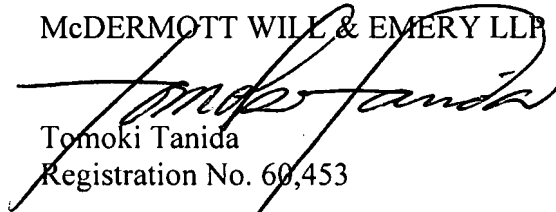
To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

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including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Tomoki Tanida', is written over the printed name and registration number.

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